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ABSTRACT

The reports that teachers receive from the Portland (Oregon) Public Schools Achievement Level Testing Program are planned to help them to see how each individual student is doing, which students need help, and how the class is performing as a whole. The information enables teachers to focus on special needs and problem areas, and also to see an overall picture of achievement. Several sets of reports are issued. The Student Report give total test information for each student by class. The two Goal Reports (1) list individual students and describe each student's performance on every goal in a test, and (2) the same information rearranged for convenience in identifying instructional groupings. The Parent-Teacher Conference Report is designed to help the teacher discuss a child's test scores during conference time. This document describes each report, and provides information on interpreting individual test scores, class test scores, and total grade test scores. A brief glossary of measurement terms is also provided. (BW)

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EVALUATION DEPARTMENT
PORTLAND PUBLIC SCHOOLS

PORTLAND, OREGON 97208

ED235196

Interpretation of
Achievement Level Test Reports

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Evaluation Department

Portland Public Schools

501 N. Dixon Street

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Interpretation of
Achievement Level Test Reports

The reports that teachers receive from the Achievement Level Testing Program are planned to help them to see how each individual student is doing, which students need help, and how the class is performing as a whole. The information enables teachers to focus on special needs and problem areas, and also to see an overall picture of achievement. Several sets of reports are issued, and the following paragraphs and illustrations will give teachers and principals a better idea of how the information can be used.

The Achievement Level Test Student Reports (Illustration 1) give total test information for each student by class. Two student reports with identical information are given: one lists students (by class) in alphabetical order; the other lists students in rank order (from highest score to lowest). The alphabetic report gives scores for language usage, reading, and mathematics on the same page while the rank order report uses a separate page for each test.

Two total scores are reported. The first is the Rasch (RIT) achievement score,* and the second is the P-score.* The RIT score shows growth on an equal interval scale extending from a low 3rd grade level through 9th grade. Normal growth is indicated by an increase in RIT score equal to the average gain for that grade. The second set of scores, P-scores, shows how a student is performing in relation to all Portland students at his or her grade level. The P-score scale is the same for all grades, with a score of 50 being average. (This is the same P-score that Portland has used for many years.) With normal growth, a student will maintain the same P-score from year to year.

The Achievement Level Test Student Rank Report lists the scores of the individual class members on the test being reported. The general

* More complete definitions are given in the glossary (p. 22).

level of performance on the particular test is indicated by an "X" with dots on either side. These dots make up an error band (see Illustration 1). The error band shows the probable amount by which chance factors could push a score up or down.

By means of these reports students can be compared to others in the same class and those with problems in a subject can easily be identified. By comparing RIT scores with those from previous grades, a teacher can observe a student's rate of achievement growth. The alphabetic report makes it convenient for a teacher to look up scores on an individual student. The rank report makes it easy to count how many scores are above, or below, a certain value and also to identify the students getting those scores. The rank-order report is especially helpful with the upper grades, since it quickly identifies that group of students who may have difficulty meeting the graduation standards by the time they reach high school.

The principal's report is a version of these reports designed for the principal's use. It contains the same information as is given in a teacher's report except that the students are listed over an entire grade and not by class. This enables the principal to see at a glance how students are performing throughout an entire grade. (The alphabetic section of the principal's report also gives scores of language usage, reading and mathematics tests on the same page to permit easy reference.)

See Illustration 1 (page 5) for further clarification of the "teacher's" rank order student report.

The Goal Reports (two in number) make up the second set of reports. One of them (Illustration 2 on page 6) lists individual students and describes each student's performance on every goal in a test. Reports are given for each of the three subjects covered in the city-wide testing program and are done according to class (language usage and reading student goal reports are on the same page). This report gives RIT and P-scores and also describes performance on each goal using an

"R" (remedial) to indicate a student scoring at or below the 16th percentile and an "L" (low) to show performance between the 16th percentile and a downward extension of the graduation standard for that subject. A blank indicates that performance on that goal is at or above "standard." (NOTE: THIS IS DIRECTLY OPPOSITE TO EARLIER PRACTICE.) With this report the teacher can locate a student and easily see if he or she performed satisfactorily on each of the goals in a test. Also, at a glance the teacher can see which students were absent or had invalid answer sheets.

At the bottom of the column for each goal is an adjective description of the performance of the total class (i.e., all those who were tested on that goal). This is based on a comparison between the performance of the particular class to the total grade on that goal.

The second Goal Report (the class goal report shown in Iilustration 3 on Page 7) has the same information as the first, but is rearranged for convenience in identifying instructional groupings. On the left hand side the complete goal statements are listed. To the right of each goal is a list of students in the class who received either an L or an R on the first goal report and need additional work. This format enables a teacher to look at each goal and find a listing of students that need more work on that goal.

The Parent-Teacher Conference Report is, as the title implies, designed to help the teacher discuss a child's test scores during conference time. It is self-explanatory. In the fall of the year, after city-wide achievement testing, a report is prepared for each individual child who was tested. The report summarizes the child's scores from that testing program (giving both RIT and P-scores). In addition to the child's scores, it gives the city-wide average RIT score for that grade and an adjective description of the comparison between the individual score and the city-wide average. Lastly, those goals on which the child scored particularly low are identified. In order to facilitate reference to the Parent-Teacher's Guide, the report specifies the test levels which were taken.

To help in overall understanding of this report, it gives key definitions, and the goals covered by each test are listed on the back.

These reports will provide a useful teaching and learning aid for teachers and principals. Their use can be beneficial and it is recommended that they be carefully studied. Illustrations 6 through 11 give a summary of the range and distribution of fall and spring scores for grades 3 through 8.

Each illustration (6 to 11) uses the Rasch (RIT) score scale as a baseline. (Key points in the RIT scale are repeated at the top of the illustration and connected to the baseline by dotted lines. This "grid" will assist in the understanding of the relationship between each grade's data and the RIT score scale.)

The range and distribution of scores for each grade is plotted and key points corresponding to P scores of 30, 40, 50, 60, and 70 for that grade are indicated.

These illustrations will help give an understanding of:

1. the range of scores within any grade;
2. the distribution of scores within each grade;
3. the overlap of score distributions from grade to grade; and
4. the typical increase in Rasch score from grade to grade.

Finally, each illustration (6 through 11) has a table giving the average score (mean) for each grade.

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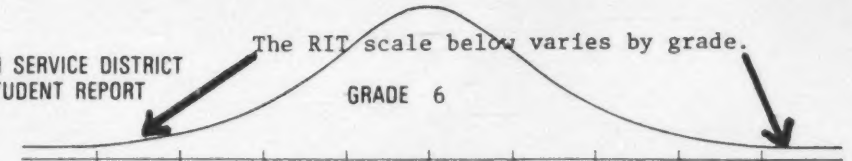
MULTNOMAH COUNTY EDUCATION SERVICE DISTRICT
Fall 19__ ACHIEVEMENT LEVEL TEST STUDENT REPORT



Reading

RIT SCALE 175 184 190 198 206 213 221 228 235
P=40 P=60

STUDENT NAME	P SCORE	RIT	VERY LOW	LOW	LOW AVERAGE	AVERAGE	HIGH AVERAGE	HIGH	VERY HIGH
Rxxxxxxxxxx, Jack	64	231							··X··
Bxxxxxxxxxx, Ruth	59	222						··X··	
Mxxxxxxxxxx, Mark	57	220					··X··		
Lxxxxxxxxxx, Susan	56	217					··X··		
Sxxxxxxxxxx, John	52	211				··X··			
Rxxxxxxxxxx, Bill	48	205				··X··			
Wxxxxxxxxxx, Pam	44	199			··X··				
Hxxxxxxxxxx, Ellen	40	192			··X··				
Axxxxxxxxxx, Bill	38	189		··X··					
Nxxxxxxxxxx, Roy	36	186		··X··					
Cxxxxxxxxxx, David	34	182		··X··					
Txxxxxxxxxx, Ann	27	171	··X··						
Lxxxxxxxxxx, Joyce	AB								

Rank order of students in a class, from highest to lowest score.

P-scores show how a student is performing in relation to all Portland students in his/her grade level. Average score for each grade is 50, with scores ranging from 20-80.

RIT (Rasch Unit) scores show growth on an equal-interval scale extending from easy 3rd grade to difficult 8th grade learning. Growth can be traced over the years by watching the trend of scores for a student. Scores as: 3rd=176; 4th=187; 5th=202; 6th=211 would indicate steady learning growth. A score around 200 is average Fall performance for 5th grade. Scale extends roughly from 140-260.

Width of error band indicates the amount of variance in score that can be expected due to various factors (including chance) of the testing situation.

The "X" marks the score which indicates general level of performance on this test.

No overlap between error bands shows that Jack's score is definitely higher than Ruth's score.

Considerable overlap of error bands shows that Mark's score and Susan's score are relatively the same.

Illustration 1

STUDENT GOAL REPORT

SCHOOL_____ STUDENTS ABOVE STANDARD, BELOW STANDARD & NEEDING REMEDIATION TEACHER_____GR._____

(date)

Student Name	Reading Total		Reading Goals				Language Total		Language Goals					
	P	RIT	Word mng	Lit Comp	Int Comp	Eval Comp	P	RIT	Sent Para	Gram mar	Punc tuat	Cap ital	Spel ling	Writ ing
Axxxxxxxxxx, Bill	38	189*	R	L	L	R	37	189*	R		R		R	R
Bxxxxxxxxxx, Ruth	59	222					61	216						
Cxxxxxxxxxx, David	34	182*	R	R	R	R	38	190*	R	R	R	R	R	
Hxxxxxxxxxx, Ellen	40	192	L		R	R	37	189*	R	R	R	L		R
Lxxxxxxxxxx, Joyce	AB		-	-	-	-	AB		-	-	-	-	-	-
Lxxxxxxxxxx, Susan	56	217					52	206						
Mxxxxxxxxxx, Mark	57	220					67	223						
Nxxxxxxxxxx, Roy	36	186*	R	R	L	R	37	189*	R		R		R	R
Rxxxxxxxxxx, Bill	48	205	R				61	216						
Rxxxxxxxxxx, Jack	64	231					62	217						
Sxxxxxxxxxx, John	52	211					60	215						
Txxxxxxxxxx, Ann	27	171*	R	R	R	R	29	179*	R	R	R	R	R	R
Wxxxxxxxxxx, Pam	44	199	L			L	40	192	R		R		R	R
Level of Class Performance			Low	Avg	Low Avg	Low			Low	Low Avg	Low	Avg	Low Avg	Low

'Blank' space indicates student is performing above graduation standard track for his/her grade on individual goals.

This means that maintaining the past rate of growth will not bring the student up to the graduation standard by entry to grade 9.

* Total score not on track to meet graduation standards by grade 9
A 'blank' for a goal means performance is at or above standard
R= Remedial (below 16th percentile) L= Between 16th percentile and standard
AB= Absent IN= Invalid RT= Scheduled for retest N=Not tested on that goal

Illustration 2

SCHOOL_____ TEACHER_____ GRADE_____ DATE_____

GOAL REPORT - *(testing prog. date)* READING LEVEL TESTS

CLASS REPORTS - *(number)* STUDENTS IN THIS CLASS

GOAL	STUDENTS POSSIBLY NEEDING ADDITIONAL WORK ON THIS GOAL			
1. THE STUDENT CAN INTERPRET THE MEANING OF COMMONLY USED WORDS	Axxxxxxxxxx, Bill	(R)	Nxxxxxxxxxx, Roy	(R)
	Cxxxxxxxxxx, David	(R)	Rxxxxxxxxxx, Bill	(R)
	Hxxxxxxxxxx, Ellen	(L)	Txxxxxxxxxx, Ann	(R)
			Wxxxxxxxxxx, Pam	(L)
2. THE STUDENT CAN COMPREHEND LITERALLY STATED WRITTEN MATERIALS	Axxxxxxxxxx, Bill	(L)	Nxxxxxxxxxx, Roy	(R)
	Cxxxxxxxxxx, David	(R)	Txxxxxxxxxx, Ann	(R)
3. THE STUDENT CAN INTERPRET IMPLIED MEANINGS IN WRITTEN MATERIALS	Axxxxxxxxxx, Bill	(L)	Nxxxxxxxxxx, Roy	(L)
	Cxxxxxxxxxx, David	(R)	Txxxxxxxxxx, Ann	(R)
	Hxxxxxxxxxx, Ellen	(R)		
4. THE STUDENT CAN EVALUATE THE INTENT, VALIDITY AND WORTH OF WRITTEN MATERIALS	Axxxxxxxxxx, Bill	(R)	Nxxxxxxxxxx, Roy	(R)
	Cxxxxxxxxxx, David	(R)	Txxxxxxxxxx, Ann	(R)
	Hxxxxxxxxxx, Ellen	(R)	Wxxxxxxxxxx, Pam	(L)

R = Remedial (below 16th percentile)
L = Between 16th percentile and standard

Statement of goals the subject test is geared to measure.

Individual students needing additional work on specified goals, compiled by class for easy reference and planning.

Illustration 3

PORTLAND PARENT-TEACHER CONFERENCE REPORT

ACHIEVEMENT LEVEL TEST RESULTS

SCHOOL –
NAME –

GRADE –
ID –

	LU	READ	MATH
TEST LEVEL	T-25	L-4	B-15
RIT SCORE	207	204	212
GRADE AVERAGE	204	208	210
P-SCORE	52 (AVERAGE)	47 (AVERAGE)	51 (AVERAGE)
GOALS NEEDING MORE WORK:	2	3	7.8

Explanation of Test Score Information:

TEST LEVEL: The number of the test level taken in each of the three subjects.

RIT SCORE: The score showing progress on the grade to grade growth scale (ranging from 140 to 260). The RIT score increases from grade to grade.

GRADE AVERAGE: The average city wide RIT score for the student's grade level.

P-SCORE: The score showing the student's standing compared to other Portland students in the same grade. (The average score is 50 and most scores are between 30 and 70.) In addition to the P-score, there is a description of the student's performance compared to all students in the same grade. The categories used are: Very High; High; High Average; Average; Low Average; Low; and Very Low.

GOALS NEEDING MORE WORK: Numbers identifying the goals on which the student is low. (See the Parent-Teacher Guide for the actual goal statements and examples of typical test items for each goal.) The goals for the Language Usage, Reading, and Mathematics tests are listed on the back of this report.

COMMENTS:

LANGUAGE GOALS:

1. The student can recognize and use fundamental sentence and paragraph structure.
2. The student can use basic grammar correctly.
3. The student can punctuate correctly.
4. The student can capitalize correctly.
5. The student can spell correctly.
6. The student can write with coherence, clarity, economy, and consistency.

READING GOALS:

1. The student can interpret meanings of commonly used words.
2. The student can comprehend the literal meaning or explicit content of written materials.
3. The student can interpret implied and related meanings from the content and presentation of written materials.
4. The student can evaluate the intent, validity and worth of written materials.

MATH GOALS:

1. The student can add whole numbers.
2. The student can substract whole numbers.
3. The student can multiply whole numbers.
4. The student can divide whole numbers.
5. The student can order, compare, rename and represent whole numbers.
6. The student can order, compare, rename and represent rational numbers (fractions, decimals and percents).
7. The student can compute with fractions.
8. The student can compute with decimals and percents.
9. The student can use knowledge of geometry.
10. The student can use knowledge of measurement.
11. The student can interpret and use graphs, statistics and probability.
12. The student can solve story (word) problems.
13. The student can use the strategies and processes of problem solving.

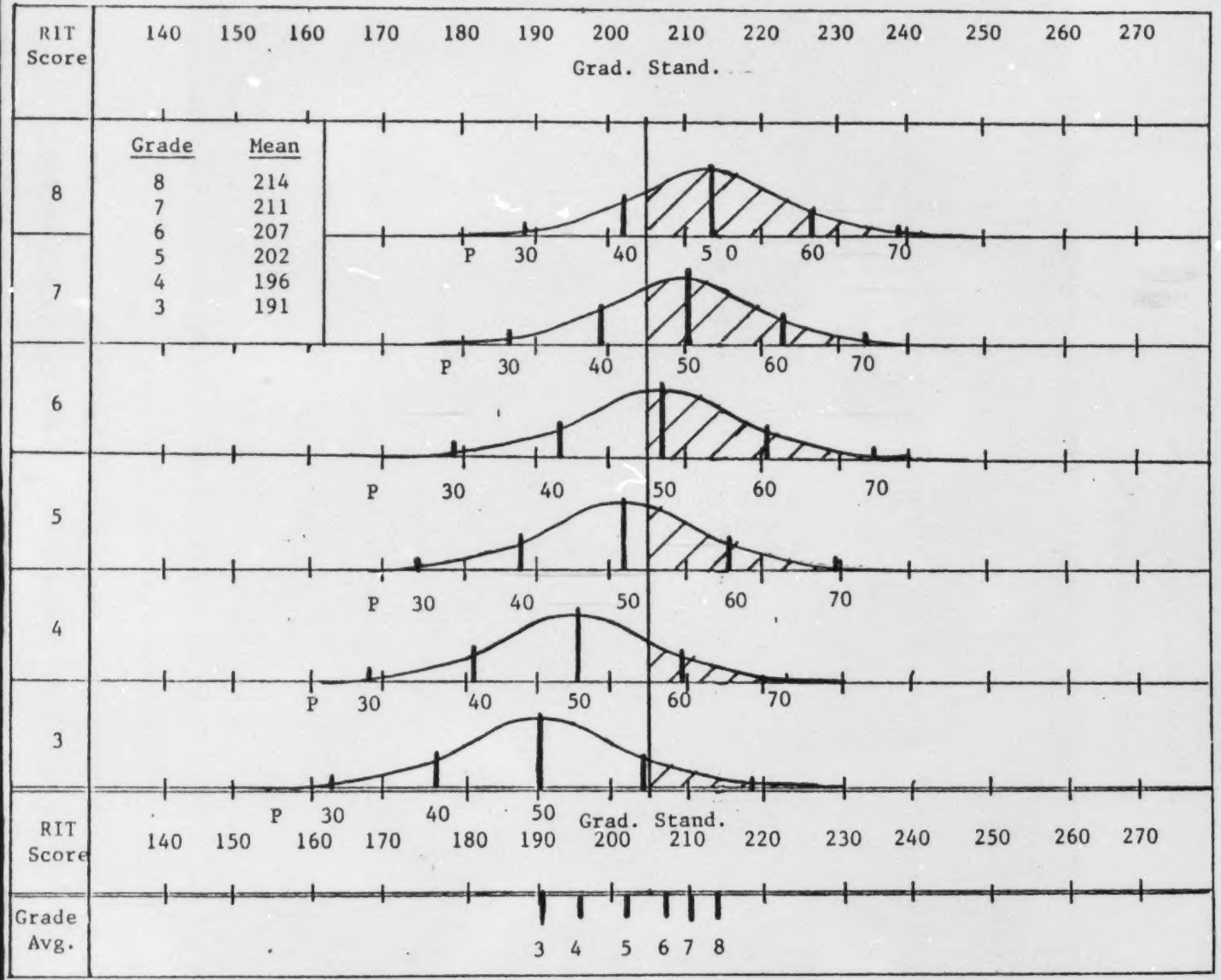


Illustration 6. Fall Language Usage Score Distributions for Grades 3 through 8.
(Fall 1981 Norms)

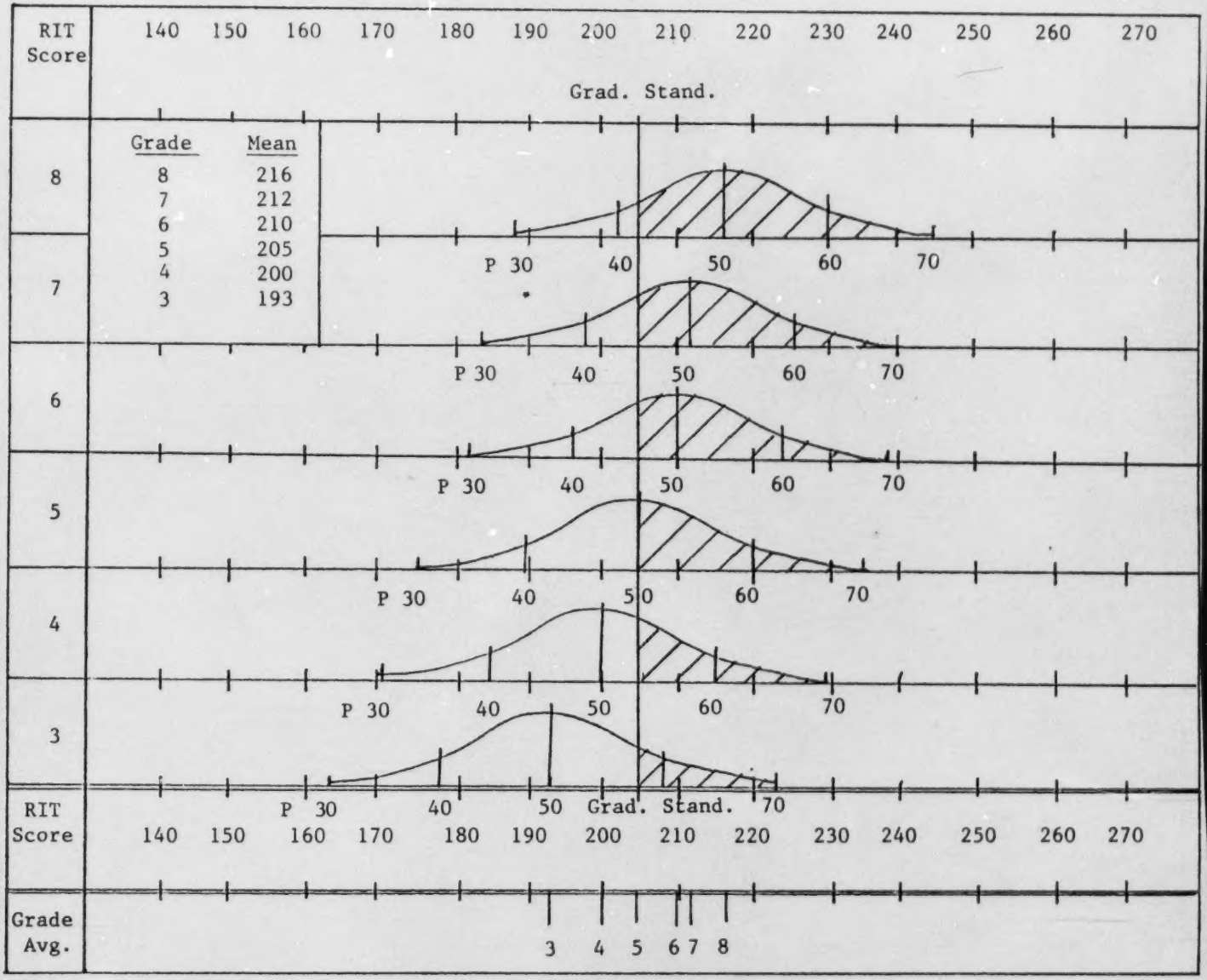


Illustration 7. Spring Language Usage Score Distributions for Grades 3 through 8.
(Spring 1981 Norms)

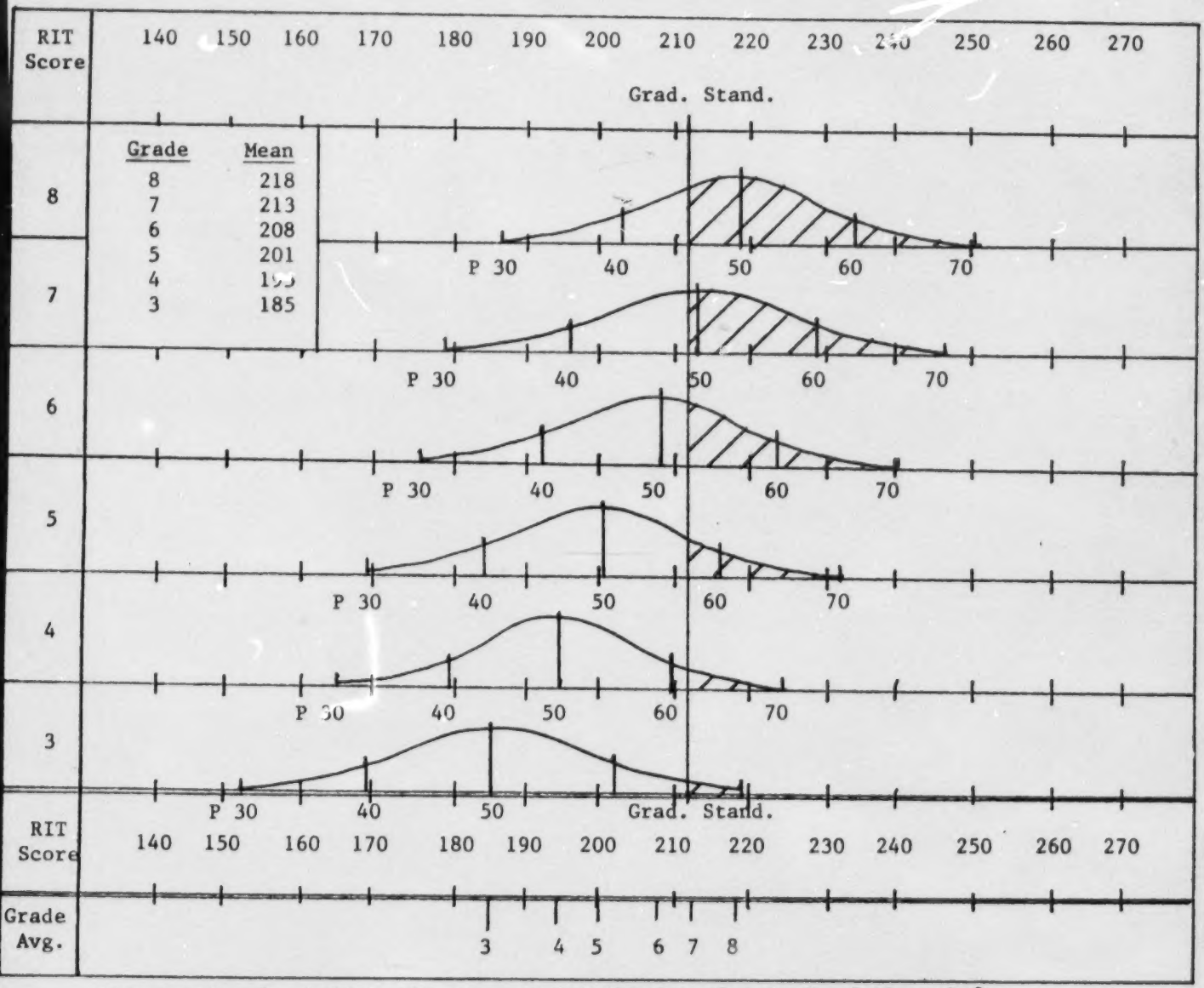


Illustration 8. Fall Reading Score Distributions for Grades 3 through 8
(Fall 1980 Norms)

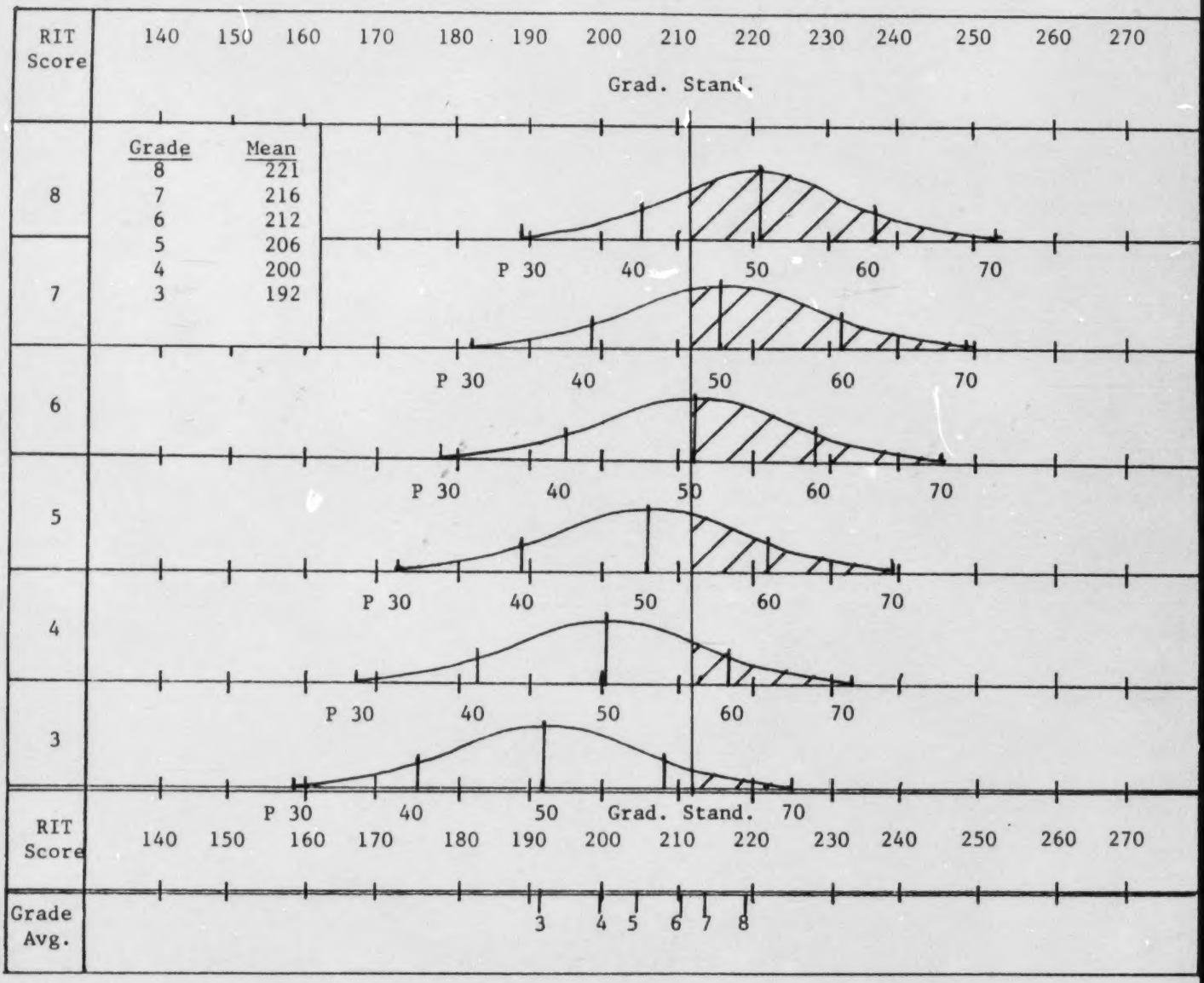


Illustration 9. Spring Reading Score Distributions for Grades 3 through 8.

(Spring 1981 Norms)

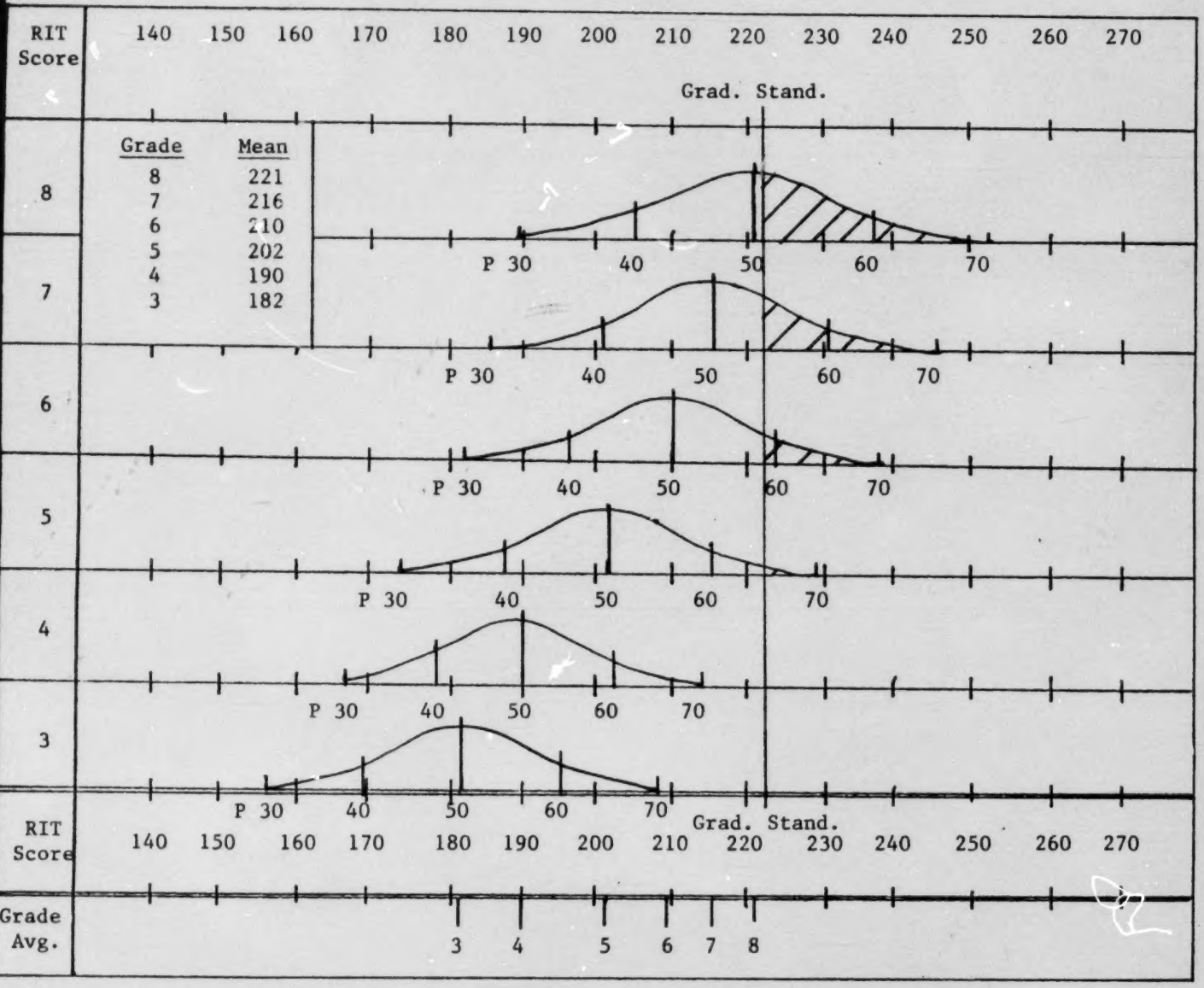


Illustration 10. Fall Mathematics Score Distributions for Grades 3 through 8.
(Fall 1980 Norms)

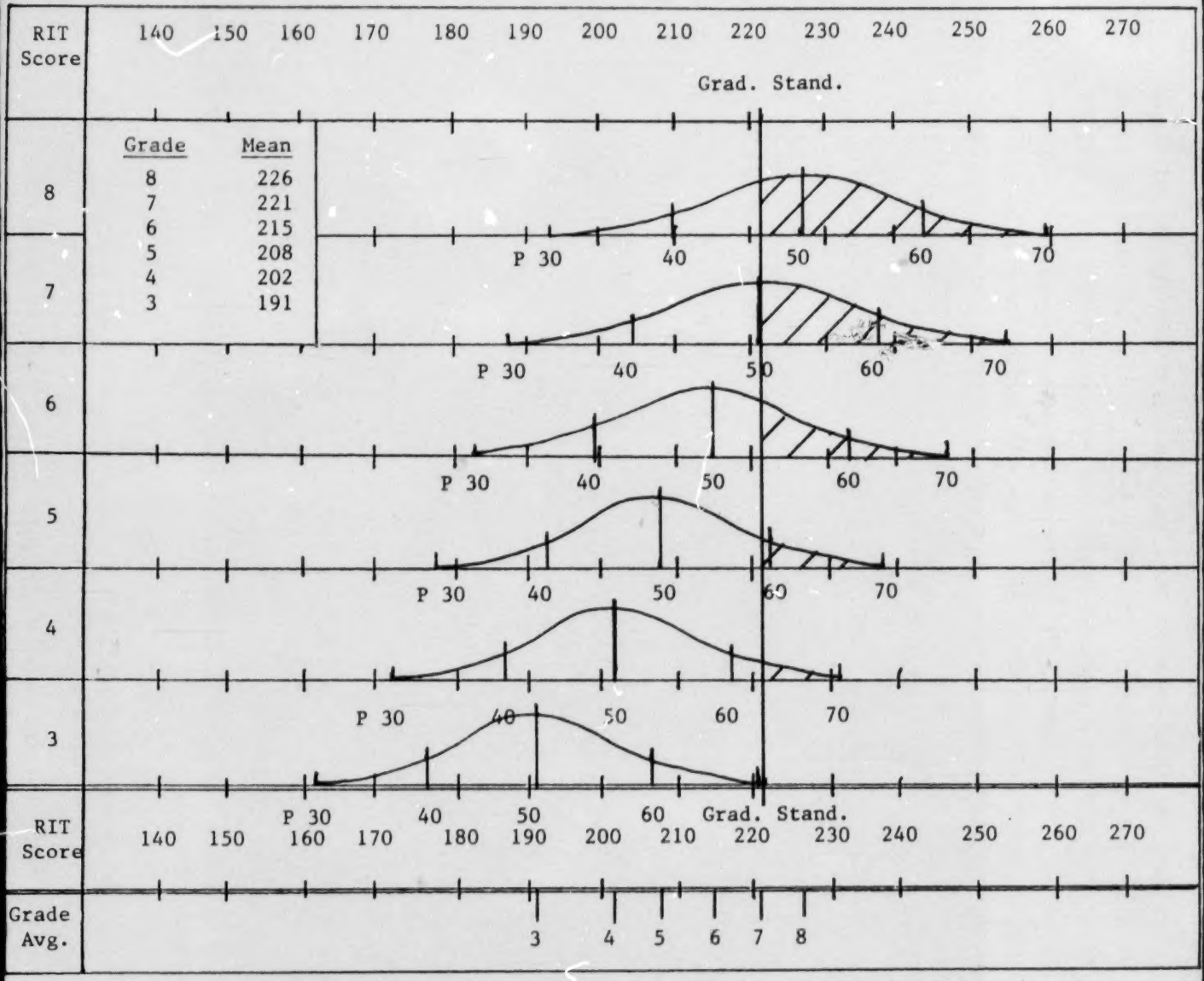


Illustration 11. Spring Mathematics Score Distributions for Grades 3 through 8.
(Spring 1981 Norms)

Let's see how these reports help us understand individual children. We will take an example (a boy, Bill A_____) from Illustration 1 and follow him through 3 years of school and achievement testing. Bill is presently a 6th grader. His latest reading scores as shown in Table 1 (below) are P = 38 and RIT = 189. His math scores are P = 51 and RIT = 209. All of Bill's scores from 4th to 6th grade are summarized in Table 1 and are shown in Illustration 12 (page 18). These scores are based on 1980 norms.

TABLE 1

TEST SESSION		SCORES			
		MATH		READING	
		P	RIT	P	RIT
FALL	4th Gr.	47	187	42	182
SPRING	4th Gr.	49	199	43	186
FALL	5th Gr.	48	199	42	188
SPRING	5th Gr.	50	208	39	186
FALL	6th Gr.	51	209	38	189

You will recall that a P-score of 50 is the average score regardless of grade. RIT scores vary from grade to grade as a result of increasing school experience. Each successive grade will have a higher average RIT score. A consistent increase in RIT scores from one grade to another indicates steady progress (as do P-scores that remain stable).

Bill's math scores are within the average range; his P-scores range from 47 to 51. As can be seen, his RIT Scores consistently increase between testing programs. An increase such as this tells us that Bill is progressing at a reasonable rate from year to year. The charts that give the means for each grade in math and reading are found on Ilustrations 8, 9, 10, and 11. Comparing these RIT means with Bill's

RIT scores verifies that Bill is growing at an average rate. This is graphically shown in Illustration 12 (bottom).

Bill's reading scores give a different story. A look at the P-scores quickly reveals that they are lower than the math scores. They are within the low average to low range. Bill is a below average reader and actually meets the criteria for Title I eligibility.

Bill's RIT scores also reveal information about his progress in reading. The scores are below average for his grade. In addition, growth is not consistent. During the 4th grade there was substantial growth, but after that no appreciable gain has occurred. For some reason Bill has not been growing in reading as would be expected. It would be advisable to get additional information (diagnostic testing, for instance) to help explain why this happened and to aid in planning a remedial program that will best meet Bill's needs.

The student Goal Reports give a different type of information about Bill's most recent reading test (Illustrations 2 and 3). In Illustration 2 it can be seen that Bill was not on target (above the level that would get him to the graduation standard by 9th grade) on any of the four goals. On two goals he is at the remedial level (R), and he is low (L) on the others. The goals are written out in the second goal report. This one groups all students needing help on each goal. Bill's name is grouped with others who also need help on the same goals. (Illustration 3). This aids the teacher by giving specific details concerning Bill's particular reading problems as well as identifying others with similar needs (to aid in instructional grouping). Bill can especially use help in the areas of "interpreting implied meanings in written materials," and "evaluating the intent, validity, and worth of written materials."

Language usage scores are interpreted in exactly the same way.

Interpretation of Individual Test Scores:

Reading and Mathematics Profiles for Bill A ____.

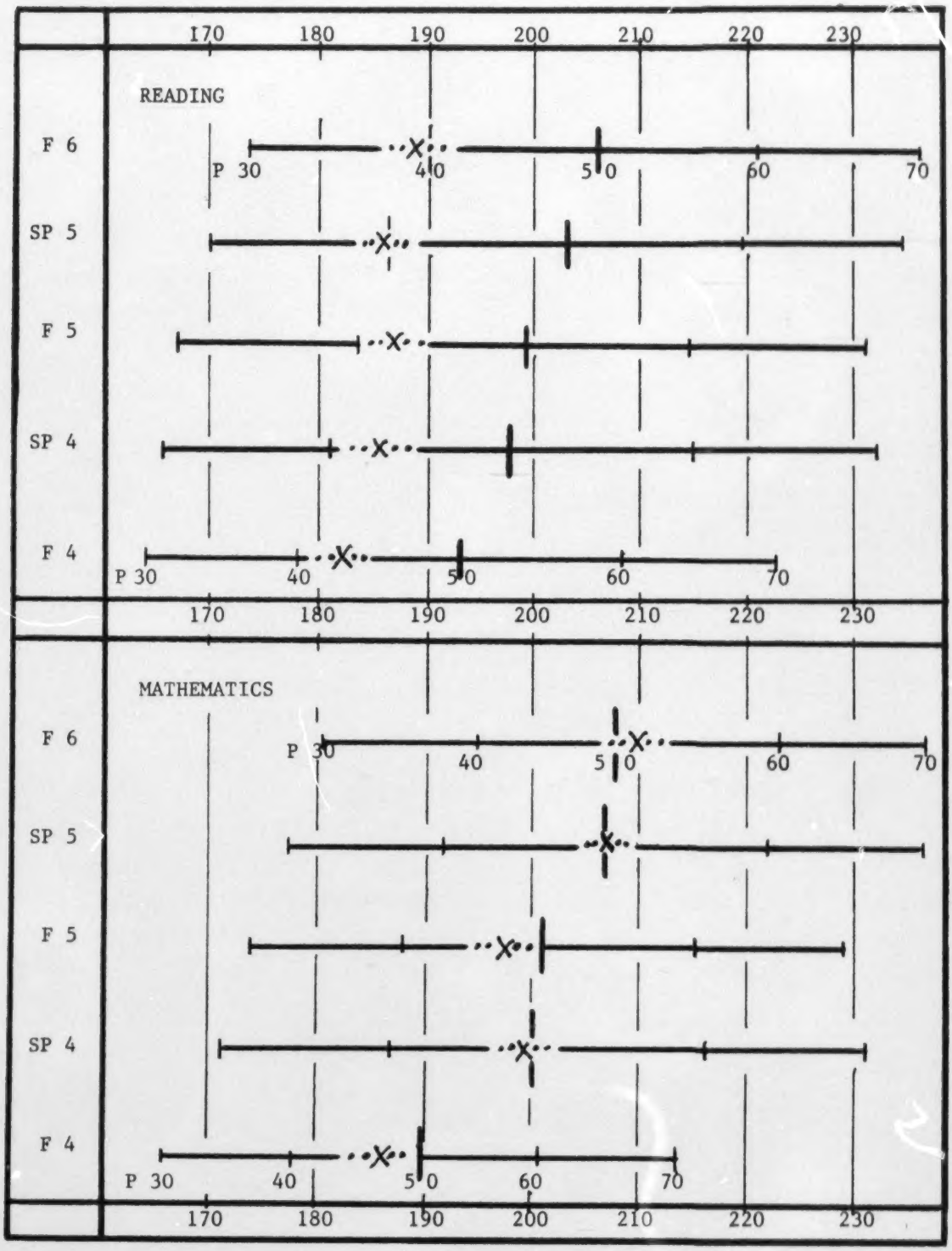


Illustration 12

Thus, by following the scores, and carefully studying the student reports, it is possible to help each student get the instructional program most appropriate to present development and personal need.

Interpretation of Class Test Scores

As the next step in using test results let's look at an entire class. Bill's class will be studied. The fall reading scores for his 6th grade class are given in Illustration 1. By looking at the scores it can be seen that they range from Very Low to Very High, and are spread through all levels. To see how this class compares to the entire 6th grade in the district first find the average score for the class. You can calculate either the mean (the arithmetic average) or the median (mid-point of all scores). Twelve students have scores, so the average or mid-point will be mid-way between the 6th and 7th scores (Bill R. and Pam W). The P-score median will be between 44 and 48, and equals 46. (In this case the mean calculates out to 46.25; usually the two will be slightly different). The RIT score median is between 199 and 205, or 202. (The mean RIT score is 202.08, very close to the median but not identical.) Next go to the District Distribution chart for fall reading (Illustration 8). The mean table on the left gives us the means for the district (rounded to the nearest whole number). The district 6th grade mean (RIT) is 208. Thus, this class is slightly below the average for the entire district's 6th grade. (46.25 is over 3 P-score points lower than 50, and 202 is six RIT score points lower than 208.)

The Goal Reports also can be useful for class analysis and planning. Illustration 2 describes an entire class's performance with regard to the four reading goals tested. An "R" under a goal following a student's name indicates a need for remedial work, an "L" indicates low performance, and a blank indicates the student should reach graduation standard by 9th grade. Thus, a large proportion of blanks compared to "L"s and "R"s would indicate the overall class did quite well, while a large percentage of "L"s and "R"s would indicate that the class as a whole did not. This particular class did fairly well (as we would anticipate from the average scores) but the number of "L"s or "R"s indicates that there is room for considerable improvement. Some students were marked with an asterisk (*), meaning

that their total reading score was at, or below, that level which indicates a need for special help.

Illustration 3 will be useful in a somewhat different way. The 4 reading goals are written on the left side of the report. To the right of each goal is a list of the specific students in the class that need more work on that goal ("L" or "R"). In this example, each goal has several students that need help. This information will be very useful to the teacher since it can be used to set up instructional groups.

Thus, by utilizing the Student Reports and Goal Reports, a teacher can see how the class compares to the total grade in Portland, and in what areas students need the most work.

Interpretation of Total Grade Test Scores

The use of the reports for a total grade will be of primary interest to the principal of the school. Each principal receives a report organized by total grade within the school. As with a single class, it is possible to calculate average scores for each grade. In the following illustration (Illustration 13) a distribution of Fall reading scores is set up for an entire 6th grade in a school. The X's mark each RIT (Rasch) score for the 50 students comprising the class. The average score can be found by either of the two methods already discussed. As you have already seen the arithmetic average (or mean) is found by adding all the scores and dividing by the number of scores. The mean here is 200. The median can be estimated by counting up (or down) 1/2 of the number of scores (1/2 of 50 equals 25). The estimated median is 201. The fall reading distribution chart is again referred to (Illustration 8). The mean table (on the left hand side) gives the Portland district's overall mean by grade, and the 6th grade mean here is 208. Thus the 6th grade in this particular school is somewhat below average for the total group of Portland's 6th graders.

Principals, administrators, or other school personnel can also use this procedure to assess the performance of a specific school. A

series of administrative reports issued by the district's Evaluation Department provide a wealth of information about a total school's performance and its comparison to all other schools. The grade averages can be compared to those from previous years. It is also possible to see how one school compares to the total city. (As a rule of thumb, it can be said that a grade is <u>probably</u> above or below average if that grade in a school is more than 3 or 4 RIT points different than the district mean; it is virtually certain that the grade is above or below average if the difference is more than 7 points.)

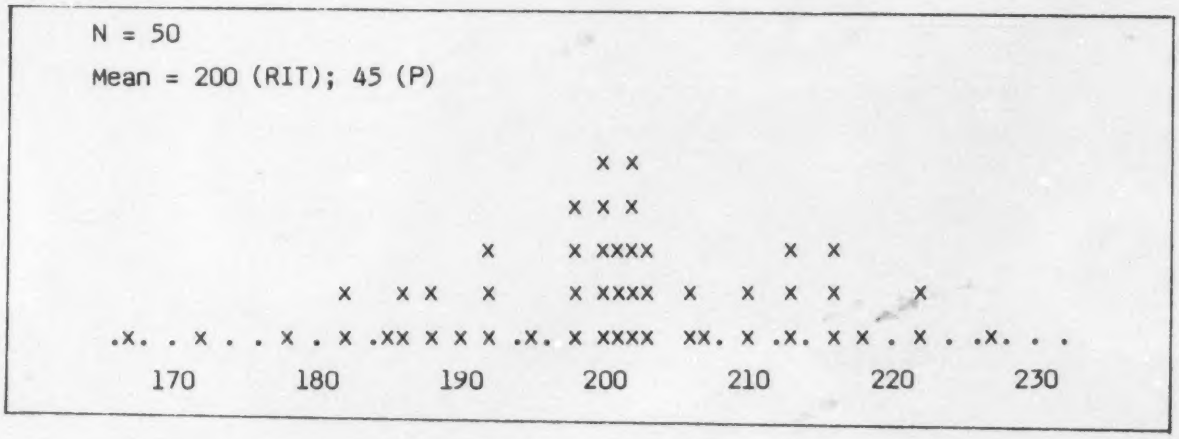


Illustration 13
Distribution of School's 6th Grade Reading Scores
with RIT and P Score Means (Fall)

GLOSSARY

Arithmetic Average. (See Mean).

Average Score. (See Mean and Median).

Comprehension. (See Literal, Interpretive, and Evaluative Comprehension).

Criterion. A standard against which performance is judged.

Descriptive Score Categories. Terms used to provide a qualitative description of test performance. In the Portland Public Schools the folowing series of seven categories is used: Very high; High; High Average; Average; Low Average; Low; and Very Low.

Distribution. (See Score Distribution).

Equal Interval Score Scale. A score scale where all intervals between adjacent scores represent equal changes in performance. (A meter stick has an equal interval scale.) The difference between test scores 150 and 151 is the same as 159 to 160, or 181 to 182. Furthermore the interval from 150 to 175 indicates the same difference as does 190 to 215. (Not all score scales are equal interval.)

Error Band. (See Standard Error). The range of possible score values falling between one standard error above and below a given test score. The odds are 2 out of 3 that a retest score would fall within this range (assuming that such a retest is given in close time proximity to the original test).

Evaluative Comprehension. The ability to evaluate the intent, validity, and worth of written materials.

Goal Report. A test report describing the performance of students on the items measuring each specific goal included in the test. The description "L" when used with grades 3 through 8 indicates the

student performed above the 16th percentile (for that grade) on the items measuring a goal, but was still below the level where normal growth will reach the graduation standard by the end of grade 8. An "R" indicates that the student is below the 16th percentile on that goal.

Interpretive Comprehension. The ability to interpret meanings related to, and implied by, the content of written materials.

Literal Comprehension. Understanding based on a literal interpretation of a written passage (with no speculation about, or evaluation of, what the passage implies).

Mean (The Arithmetic Average). The average calculated by adding up all scores and dividing by the number of scores. This is the average most commonly used in testing.

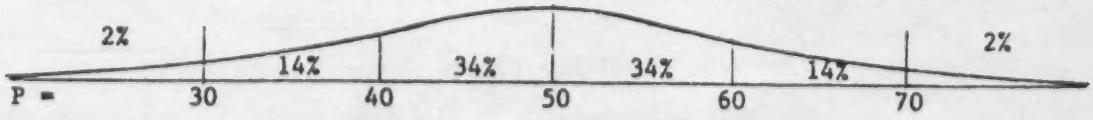
Median. The average which designates the mid-point of a distribution of scores. It often can be calculated by mere counting.

Norm. A standard or set of standards describing performance within a given population (for example, Portland 5th grade norms, State of Oregon 8th grade norms).

Normal Distribution. The distribution of scores around their average in a manner typical of such a distribution from a total population (forming a symmetrical "bell shaped" curve).

Percentile. A number describing the proportion (percentage) of scores in a given distribution that is equal to, or lower than, a particular score.

P Score. The standard score used in Portland. The average (mean) is 50 and scores range from below 30 to above 70. (This same type of score is frequently called a "T" score in the literature.) The percent of scores falling within given P score ranges is as follows:



Principal's Report. A test report listing student names and scores (both alphabetically and in rank order) for each grade level within a school. It is intended for the use of the building principal and other appropriate administrators.

Rank. Placement of scores in a series in order of size. From rank alone there is no way to tell how much difference in performance there is between any two rankings.

Raw Score. The number of problems or items answered correctly on a test.

RIT (Rasch Score) Report. A teacher's report listing students and test scores in terms of RIT (Rasch) scores. (These form an equal interval scale.) It is produced in both alphabetic and rank order. In addition to giving Rasch scores it gives P scores, and graphs the appropriate descriptive category for each student's score. The graphic plot shows where each score falls in relation to a normal curve describing the distribution of city wide Portland scores for that grade level.

RIT (Rasch) Score. A scaled score describing student performance in terms of the equal interval score scale underlying the Portland Achievement Level Tests. The average performance of 5th graders in a fall testing program is set equal to 200 and the scale goes evenly up and down from there. The scale extends from very low third grade performance through ninth grade. (See Equal Interval Score Scale.)

Score Distribution. A systematic tabulation of the number of students attaining each test score.

Score Report. A testing program report listing student names and scores (both alphabetic and rank order terms). Usually, but not always, it will involve a single classroom group.

Standard Error. The amount by which chance or measurement error can push a score up or down from the "true score" (the value it would have

with a perfect test used in a perfect testing situation). The standard error is an amount such that the odds are two out of three than the obtained score would not differ by more than one standard error from the true score. For example, a student gets a RIT score of 209 and the standard error is 3. We can be confident (odds at 2 out of 3) that the true score is between 206 and 212; the odds are about 19 out of 20 that the true score is somewhere within 2 standard errors of the obtained score (or somewhere between 203 and 215). The smaller the standard error the more reliable a test score is.

Trend. A direction shown by a series of test scores (e.g., a child's scores show an upward trend, indicating that they systematically get higher).

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